GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA

UNSTARRED QUESTION NO:1928
ANSWERED ON:09.03.2016
Country's Entry Into IEA-OES
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Will the Minister of EARTH SCIENCES be pleased to state:

(a) whether the Government has approved the country''s entry into the International Energy Agency-Ocean Energy Systems (IEA-OES);

(b) if so, the details and aims and objectives thereof along with the benefits that are likely to accrue as a result thereof;

(c) the other steps taken/being taken by the Government to harness energy from all forms of ocean renewable resources through international cooperation and information exchange by promoting advance research, development and technologies;

(d) whether the Government proposes to promote ocean energy and desalination under the National Institute of Ocean Technology by encouraging more scientists in the field of research; and

(e) if so, the details thereof?

Answer

THE MINISTER OF STATE FOR MINISTRY OF SCIENCE AND TECHNOLOGY AND MINISTRY OF EARTH SCIENCES
(SHRI. Y. S. CHOWDARY)

(a) Yes, Madam.

(b) The proposal for India's membership on the International Energy Agency − Ocean Energy Systems (IEA-OES) was approved by the Cabinet in its meeting held on 13th January 2016 with a view to access information on advances in research and development pertaining to ocean energy systems. Formulation of joint cooperative programs with other member countries, partnership in development of test protocols and testing Indian prototypes as per international requirements and norms are some of the major benefits of this membership.

(c) National Institute of Ocean Technology (NIOT), an autonomous institute of Ministry of Earth Sciences explores technologies for harnessing different forms of ocean energy like wave energy and Ocean Thermal Energy Conversion (OTEC). NIOT is involved in studies on turbines, heat exchangers, floating wave powered devices to generate electricity from waves. An experimental wave power prototype plant was installed at Vizhinjam near Thiruvananthapuram in Kerala in October 1991. The plant operated on the principle of Oscillating Water Column which generated 20-30 KW power on an average. Several power modules and turbines were tested in this plant and the results have helped to understand the wave to wire conversion. NIOT has conducted laboratory level experiments for generation of electrical energy by Ocean Thermal Energy Conversion (OTEC), utilising difference in temperature between ocean surface and ocean depth around 800-1000m. These aspects are envisaged in the collaborating framework with IEA-OES.

(d) Yes, Madam.

(e) Scientists from National Institute of Ocean Technology are involved in research activities for technology development pertaining to ocean energy and desalination and have submitted Detailed Project Report (DPR) for setting up of 6 desalination plants in Lakshadweep to the Lakshadweep Administration. Earlier, three desalination plants, based on the Low Temperature Thermal Desalination (LTTD) technology indigenously developed and demonstrated by the National Institute of Ocean Technology, have been successfully commissioned one each at Kavaratti, Minicoy, and Agatti islands of the Union Territory of Lakshadweep. The capacity of each of these LTTD plants is 1 lakh liter of potable water per day. One experimental LTTD plant using condenser waste heat from power plant was also set up at North Chennai Thermal Power Station (NCTPS).